Introduction to EQR 2000

The Michigan Department of Community Health (MDCH) contracted with Michigan Peer Review Organization (MPRO) to conduct an external quality review of the health care provided to Michigan Medicaid enrollees. This review included approximately 700,000 enrollees in different health plans and 375,000 covered under the Fee-For-Service (FFS) program. The External Quality Review (EQR) for calendar year 2000 meets required standards for EQR programs by the Center for Medicare and Medicaid Services (CMS) and the State of Michigan legislature.

In previous EQR reviews, Medicaid health plan enrollees were reviewed separately from those not enrolled in a health plan (FFS). Given the shift of enrollees since the mid 90s when the mix was approximately 70% FFS to 30% managed care, to today's mix of about 35% FFS to 65% managed care, it is appropriate to review this Michigan Medicaid population as one entity. When managed care was first introduced there was concern that enrollees in managed care would not receive the same level of care provided under FFS. Results of EQRs for the past three years have demonstrated that enrollees usually receive similar and appropriate care, regardless of their enrollment in a health plan or FFS population. In this report the FFS population is included when referring to "plans" and "enrollees" unless specifically described otherwise.

Studies included in 2000 EQR included:

- Immunization Review
- Early and Periodic Screening, Diagnosis, and Treatment (EPSDT)
- Prenatal Care
- Diabetes Care
- HIV/AIDS Access

Health Plans

Health plans included in this 2000 EQR review must have been under contract with Medicaid on or before January 1, 2000. There were 19 qualified health plans, plus the FFS population that comprised the 20 health plans included in the study. Abbreviations are used throughout the report for readability purposes. A health plan listing with corresponding abbreviations is shown in the table below.

2000 EQR Health Plans	
Health Plan Name	**Abbreviation**
Botsford Health Plan	Botsford
Cape Health Plan	Cape
Care Choices HMO	Care
Community Care Plan	CCP
Community Choice Michigan	CCM
Fee-For-Service	FFS
Great Lakes Health Plan	GLHP
Health Plan of Michigan	HP-M
HealthPlus of Michigan	Hplus
M-Care	M-Care
McLaren Health Plan	MHP
Midwest Health Plan	Midwest
Molina Healthcare of Michigan	Molina
OmniCare Health Plan	Omni
PHP of Mid-Michigan	PHP-Mid
PHP of Southwest Michigan	PHP-SW
Priority Health Plan	Priority
The Wellness Plan	TWP
Total Health Care	THC
Upper Peninsula Health Plan	UPHP

Study Methodology

MPRO conducted the focus studies for 2000 EQR using four different data sources:

- Administrative data – includes encounter/claims data, member enrollment, and physician information files maintained by either the health plans or MDCH
- Medical record abstraction – data abstracted by trained nurse abstractors from either primary care or specialty physician medical records
- Michigan Childhood Immunization Registry (MCIR) – data extracted from the MCIR database that houses immunization information entered by any type of health care provider in Michigan
- Survey – includes data obtained through a mailed survey to selected providers

For each focus study, MDCH provided MPRO with files containing information for enrollees who met pre-qualification criteria for each focus study, such as a delivery during the measurement period for the prenatal focus study. MPRO applied additional selection criteria developed by MPRO and MDCH in order to identify each study population. The study population criteria are described in each section of this report.

In order to estimate quality indicator rates (e.g., the percentage of children with immunizations up to date by age 2) for the immunization, diabetes and EPSDT focus studies, a randomly selected sample of medical records was reviewed. The sampling methodology was designed to estimate health plan-specific quality indicator rates for the immunization and diabetes studies. The indicator rates estimate the true rates for each health plan with a 5% error bound at a 95% confidence level. The sampling methodology for the EPSDT study was designed to estimate age-group specific quality indicator rates for the managed care and FFS populations separately with a 10% error bound at a 95% confidence level.

The rate assumed for each indicator rate calculation was based on previous information when known, or a conservative estimate of 50% if unknown. The indicator rate for the focus study that was closest to 50% was used. If the smallest of the previous year rates was higher than 75%, then a rate of 75% was used in the calculations. This protected against rate drops adversely affecting the sample size. Similarly, if the largest rate was lower than 25%, a rate of 25% was used to guard against an unexpected rate increase. To ensure meeting the required sample size, a 20% oversampling factor was applied to the required sample sizes for the health plans to allow for records that were miscoded or unavailable. Because the FFS providers have historically supplied only 50% of the requested records, an oversampling factor of 100% was applied.

After randomly sampling, MPRO requested provider information from each health plan and from MDCH for the FFS population. MPRO made arrangements to obtain copies of medical records and to complete on-site record abstraction at individual physician office sites for health care providers who had 10 or more cases to be reviewed at one location. Nurse reviewers abstracted information and recorded it in the data abstraction tool that MPRO developed in conjunction with MDCH. MPRO stored the data from the completed abstractions and then analyzed the data. About 27% of the abstracted medical records were abstracted on-site at health care provider

offices. The remaining 73% were abstracted from copies of medical records at the MPRO office. There were a total of 7,918 medical records abstracted for 2000 EQR.

MPRO supplemented the abstracted data with administrative data provided by MDCH. Encounter and claims data were obtained for all enrollees who did not meet the indicator criteria from medical record review alone. By supplementing medical record review in this way, the rates more accurately reflect the true level of care received. For the immunization study, information from MCIR was incorporated initially so that medical records would not need to be obtained for enrollees who were registered in the system as up to date.

For the immunization and diabetes focus studies, aggregate rates were weighted to reflect each health plan's contribution to the overall population. The aggregate rates referenced from previous EQR studies are also weighted aggregate rates, although in prior years the aggregates did not include the FFS population. Individual health plan results were compared to the weighted aggregate rates using a two-tailed binomial Z test for significance. Rates with a resulting p-value less than 0.05 were considered statistically significant. This can be interpreted as a 5% chance of mistaking that there was a difference between the health plan rate and the weighted aggregate when no difference existed in reality. Statistical comparisons made between 1999 EQR and 2000 EQR EPSDT rates were also compared using a two-tailed binomial Z test.

The graphs found in the text of the immunization and diabetes sections of the report display individual health plan rates for each indicator. The weighted mean for the aggregated health plans is displayed as a bar across each graph to facilitate comparison. Rates that were statistically significantly different from the weighted aggregate (either higher or lower) are colored dark blue, while those that were not significantly different are colored light blue. Statistical tests for rates were not performed for health plans with sample sizes less than 30 for a given indicator. Significant differences among health plan rates should not be assessed. The calculations were made for only one comparison: each health plan to the aggregate rate. It is important to note that sample size, as discussed above, will also impact whether differences can be detected. A smaller sample size will result in larger variation making it more difficult to claim meaningful differences are statistically significant.

The prenatal focus study was conducted using administrative data only. The HIV/AIDS focus study was conducted using administrative and survey data. No sampling was required because the entire study population was reviewed. Because there was no sampling variation for these studies, no statistical testing was reported for the results of these studies.

Study Limitations

Limitations specific to the different focus studies are described within each section as appropriate. All results should be interpreted while keeping both the study and data limitations in mind.